



# VOLVO

## OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Area  
**[5170]**  
Machine Id  
**VOLVO L110H 10197**  
Component  
**Diesel Engine**  
Fluid  
**VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VCP335155</b>	VCP347484	VCP298185
Sample Date		Client Info		<b>20 Dec 2023</b>	20 Apr 2022	11 Jun 2021
Machine Age	hrs	Client Info		<b>6787</b>	5538	5006
Oil Age	hrs	Client Info		<b>500</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	N/A
Filter Changed		Client Info		<b>Changed</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	<b>14</b>	10	9
Chromium	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185(m)	>10	<b>6</b>	6	4
Lead	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>15	<b>2</b>	2	1
Tin	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

### CONTAMINATION

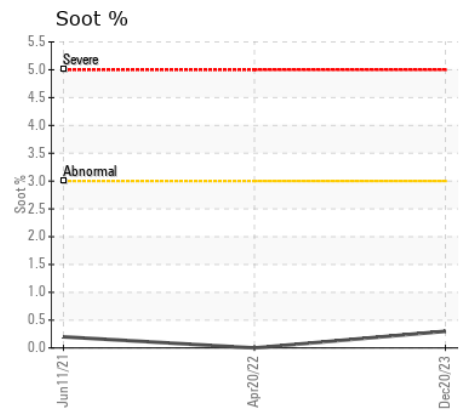
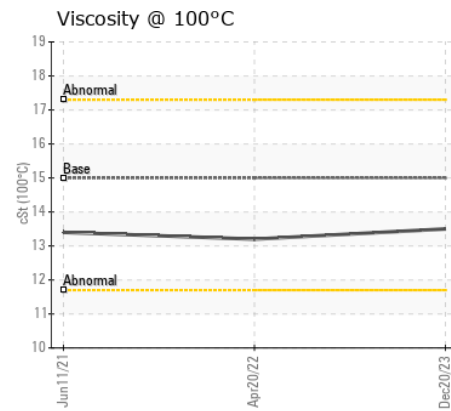
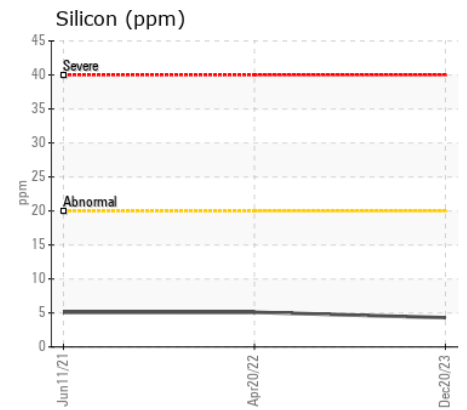
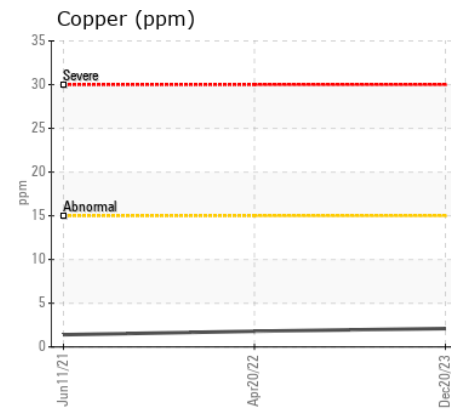
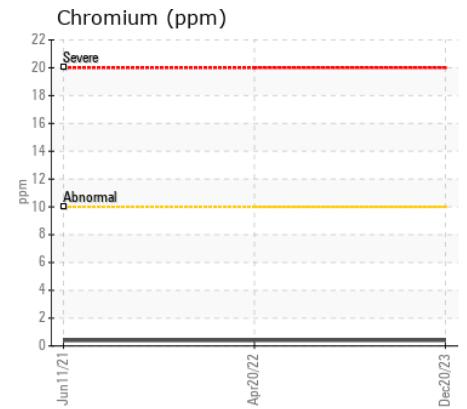
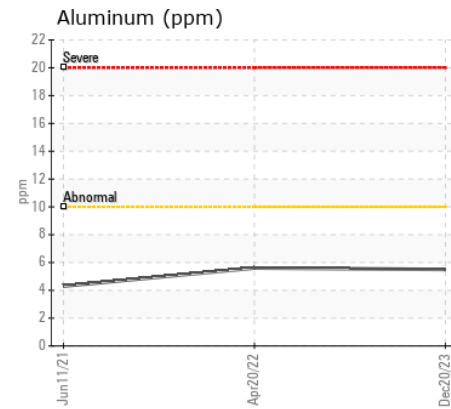
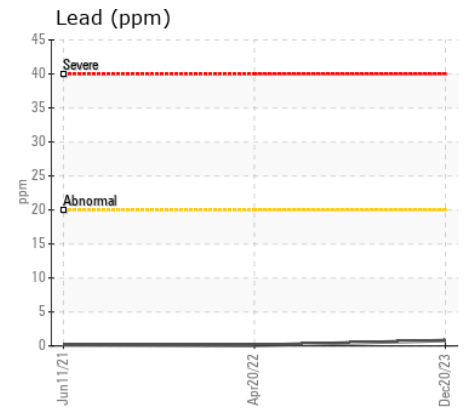
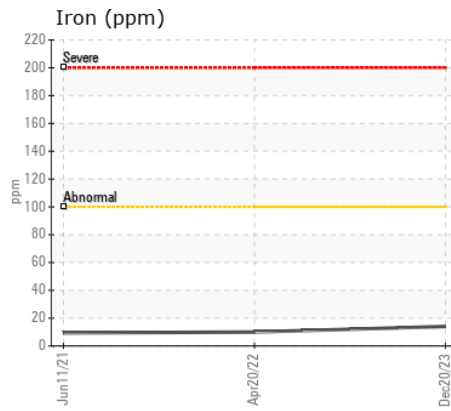
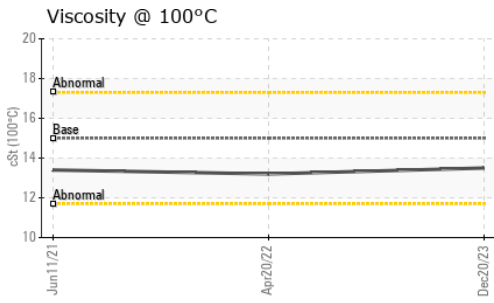
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>20	<b>4</b>	5	5
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	1	<1
Fuel		WC Method	>6.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*	>3	<b>0.3</b>	0	0.2
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.8</b>	3.7	8.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>23.7</b>	14.8	22.9
Emulsified Water	scalar	Visual*	>0.1	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>2</b>	2	4
Boron	ppm	ASTM D5185(m)	2.5	<b>27</b>	32	33
Barium	ppm	ASTM D5185(m)	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	0.7	<b>43</b>	41	32
Manganese	ppm	ASTM D5185(m)	0.0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	256	<b>567</b>	571	561
Calcium	ppm	ASTM D5185(m)	2057	<b>1703</b>	1635	1577
Phosphorus	ppm	ASTM D5185(m)	935	<b>980</b>	1007	885
Zinc	ppm	ASTM D5185(m)	1223	<b>1123</b>	1175	1097
Sulfur	ppm	ASTM D5185(m)	4079	<b>2511</b>	2495	2443
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>24.4</b>	7.2	20.8
Visc @ 100°C	cSt	ASTM D7279(m)	15.0	<b>13.5</b>	13.2	13.4



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : VCP335155 **Received** : 09 Jan 2024  
**Lab Number** : 02607478 **Diagnosed** : 09 Jan 2024  
**Unique Number** : 5708564 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.

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